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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/531,475	04/15/2005	Dirk Inze	BJS-4982-3	1234

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EXAMINER	
COLLINS, CYNTHIA E	
ART UNIT	PAPER NUMBER
1638	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
31 DAYS	03/23/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/531,475	INZE ET AL.	
	Examiner	Art Unit	
	Cynthia Collins	1638	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *April 15, 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-39* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *1-39* are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Groups 1-2755, claim(s) 1-4 and 10-16, drawn to a method comprising modifying, in a plant, expression of one or more nucleic acids and/or modifying level and/or activity of one or more proteins, which nucleic acids and/or proteins are essentially similar to any one of SEQ ID NO 1 to 2755, and a transgenic plant. Group 1 is directed to methods in which the expression, level or activity of nucleic acids and/or proteins essentially similar to SEQ ID NO:1 are modified, Group 2 is directed to methods in which the expression, level or activity of nucleic acids and/or proteins essentially similar to SEQ ID NO: 2 are modified, ... Group 2755 is directed to methods in which the expression, level or activity of nucleic acids and/or proteins essentially similar to SEQ ID NO:2755 are modified.

Groups 2756-5510, claim(s) 5-9, drawn to a recombinant nucleic acid comprising one or more nucleic acid sequences essentially similar to any one of SEQ ID NO 1 to 2755 or the complement strand thereof; and a method comprising introducing a recombinant nucleic acid according to claim 5 into a plant or plant cell, an ancestor progeny or plant part, and a host cell. Group 2756 is directed to a recombinant nucleic acid and host comprising one or more nucleic acid sequences essentially similar to SEQ ID NO:1, and a method comprising introducing said recombinant nucleic acid into a plant or plant cell, an ancestor progeny or plant part, Group 2757 is directed to a recombinant nucleic acid and host comprising one or more nucleic acid sequences essentially similar to SEQ ID NO:2, and a method comprising introducing said recombinant nucleic acid into a plant or plant cell, an ancestor progeny or plant part, ... Group 5510 is directed to a recombinant nucleic acid and host comprising one or more nucleic acid sequences essentially similar to SEQ ID NO:2755, and a method comprising introducing said recombinant nucleic acid into a plant or plant cell, an ancestor progeny or plant part.

Groups 5511-8265, claim(s) 17, drawn to use of a nucleic acid sequence essentially similar to any one of SEQ ID NO 1 to 2755 for altering one or more plant characteristics. Group 5511 is directed to use of a nucleic acid sequence essentially similar to SEQ ID NO 1, Group 5512 is directed to use of a nucleic acid sequence essentially similar to SEQ ID NO 2, ... Group 8265 is directed to use of a nucleic acid sequence essentially similar to SEQ ID NO 2755.

Groups 8266-11020, claim(s) 17, drawn to use of a protein essentially similar to any one of SEQ ID NO 1 to 2755 for altering one or more plant characteristics. Group 8266 is directed to use of a protein essentially similar to SEQ ID NO 1, Group 8267 is directed to use of a protein essentially similar to SEQ ID NO 2, ... Group 11020 is directed to use of a protein essentially similar to SEQ ID NO 2755.

Groups 11021-13775, claim(s) 18, drawn to a method comprising the use of a nucleic acid sequence essentially similar to any of SEQ ID NO 1 to 2755 in marker assisted breeding, and a plant. Group 11021 is directed to use of a nucleic acid sequence essentially similar to SEQ ID NO 1, Group 11022 is directed to use of a nucleic acid sequence essentially similar to SEQ ID NO 2, ... Group 13775 is directed to use of a nucleic acid sequence essentially similar to SEQ ID NO 2755.

Groups 13776-16530, claim(s) 19, drawn to a method comprising the use of a nucleic acid sequence essentially similar to any of SEQ ID NO 1 to 2755 in conventional breeding. Group 13776 is directed to use of a nucleic acid sequence essentially similar to SEQ ID NO 1, Group 13777 is directed to use of a nucleic acid sequence essentially similar to SEQ ID NO 2, ... Group 16530 is directed to use of a nucleic acid sequence essentially similar to SEQ ID NO 2755.

Groups 16531-19285, claim(s) 21-23, drawn to use of a nucleic acid essentially similar to any one of SEQ ID NO 1 to 2755 as a growth regulator, a growth regulating composition comprising a nucleic acid essentially similar to any one of SEQ ID NO 1 to 2755, and a method for the production of a growth regulator. Group 16531 is directed to use of a nucleic acid sequence essentially similar to SEQ ID NO 1, a growth regulating composition comprising a nucleic acid essentially similar to SEQ ID NO 1, and a method for the production of a growth regulator. Group 16532 is directed to use of a nucleic acid sequence essentially similar to SEQ ID NO 2, a growth regulating composition comprising a nucleic acid essentially similar to SEQ ID NO 2, and a method for the production of a growth regulator... Group 19285 is directed to use of a nucleic acid sequence essentially similar to SEQ ID NO 2755 a growth regulating composition comprising a nucleic acid essentially similar to SEQ ID NO 2755, and a method for the production of a growth regulator.

Groups 19286-22040, claim(s) 21-23, drawn to use of a protein essentially similar to any one of SEQ ID NO 1 to 2755 as a growth regulator, a growth regulating composition comprising a protein essentially similar to any one of SEQ ID NO 1 to 2755, and a method for the production of a growth regulator. Group 19286 is directed to use of a protein essentially similar to SEQ ID NO 1, a growth regulating composition comprising a protein essentially similar to SEQ ID NO 1, and a method for the production of a growth regulator. Group 19287 is directed to use of a protein essentially similar to SEQ ID NO 2, a growth regulating composition comprising a protein essentially similar to SEQ ID NO 2, and a method for the production of a growth regulator... Group 22040 is directed to use of a protein essentially similar to SEQ ID NO 2755 a growth regulating composition comprising a protein essentially similar to SEQ ID NO 2755, and a method for the production of a growth regulator.

Groups 22041-24795, claim(s) 24 and 26, drawn to a method for the production of enzymes and/or pharmaceuticals, and enzymes and pharmaceuticals produced according

to the method of claim 24. Group 22041 is directed to a method for the production of enzymes and/or pharmaceuticals comprising modifying expression of a nucleic acid essentially similar to SEQ ID NO:1 and/or modifying level and/or activity of a protein essentially similar to SEQ ID NO:1, and enzymes and pharmaceuticals produced according to the method, Group 22042 is directed to a method for the production of enzymes and/or pharmaceuticals comprising modifying expression of a nucleic acid essentially similar to SEQ ID NO:2 and/or modifying level and/or activity of a protein essentially similar to SEQ ID NO:2, and enzymes and pharmaceuticals produced according to the method, ... Group 24795 is directed to a method for the production of enzymes and/or pharmaceuticals comprising modifying expression of a nucleic acid essentially similar to SEQ ID NO:2755 and/or modifying level and/or activity of a protein essentially similar to SEQ ID NO:2755, and enzymes and pharmaceuticals produced according to the method.

Groups 24796-27550, claim(s) 25, drawn to use of plants according to claim 11 for the production of enzymes and/or pharmaceuticals. Group 24796 is directed to use of plants downregulated in the expression of one or more nucleic acids essentially similar to SEQ ID NO:1 for the production of enzymes and/or pharmaceuticals, Group 24797 is directed to use of plants downregulated in the expression of one or more nucleic acids essentially similar to SEQ ID NO:2 for the production of enzymes and/or pharmaceuticals, ... Group 27550 is directed to use of plants downregulated in the expression of one or more nucleic acids essentially similar to SEQ ID NO:2755 for the production of enzymes and/or pharmaceuticals.

Groups 27551-30305, claim(s) 27-28 and 32, drawn to a therapeutic composition comprising a nucleic acid essentially similar to any one of SEQ ID NO 1 to 2755, use of a nucleic acid essentially similar to any one of SEQ ID NO 1 to 2755, and a method of manufacture. Group 27551 is directed to a therapeutic composition comprising a nucleic acid essentially similar to SEQ ID NO:1, use of a nucleic acid essentially similar to SEQ ID NO:1, and a method of manufacture, Group 227552 is directed to a therapeutic composition comprising a nucleic acid essentially similar to SEQ ID NO:2, use of a nucleic acid essentially similar to SEQ ID NO:2, and a method of manufacture,... Group 30305 is directed to a therapeutic composition comprising a nucleic acid essentially similar to SEQ ID NO:2755, use of a nucleic acid essentially similar to SEQ ID NO:2755, and a method of manufacture.

Groups 30306-33060, claim(s) 27-28 and 32, drawn to a therapeutic composition comprising a protein essentially similar to any one of SEQ ID NO 1 to 2755, use of a protein essentially similar to any one of SEQ ID NO 1 to 2755, and a method of manufacture. Group 30306 is directed to a therapeutic composition comprising a protein essentially similar to SEQ ID NO:1, use of a protein essentially similar to SEQ ID NO:1, and a method of manufacture, Group 30307 is directed to a therapeutic composition comprising a protein essentially similar to SEQ ID NO:2, use of a protein essentially similar to SEQ ID NO:2, and a method of manufacture,... Group 33060 is directed to a therapeutic composition comprising a protein essentially similar to SEQ ID NO:2755, use of a protein essentially similar to SEQ ID NO:2755, and a method of manufacture.

Groups 33061-35815, claim(s) 27, 29 and 32, drawn to a diagnostic composition comprising a nucleic acid essentially similar to any one of SEQ ID NO 1 to 2755, use of a nucleic acid essentially similar to any one of SEQ ID NO 1 to 2755, and a method of manufacture. Group 33061 is directed to a diagnostic composition comprising a nucleic acid essentially similar to SEQ ID NO:1, use of a nucleic acid essentially similar to SEQ ID NO:1, and a method of manufacture, Group 33062 is directed to a diagnostic composition comprising a nucleic acid essentially similar to SEQ ID NO:2, use of a nucleic acid essentially similar to SEQ ID NO:2, and a method of manufacture,... Group 35815 is directed to a diagnostic composition comprising a nucleic acid essentially similar to SEQ ID NO: 2755, use of a nucleic acid essentially similar to SEQ ID NO: 2755, and a method of manufacture.

Groups 35816-38570, claim(s) 27, 29 and 32, drawn to a diagnostic composition comprising a protein essentially similar to any one of SEQ ID NO 1 to 2755, use of a protein essentially similar to any one of SEQ ID NO 1 to 2755, and a method of manufacture. Group 35816 is directed to a diagnostic composition comprising a protein similar to SEQ ID NO:1, use of a protein essentially similar to SEQ ID NO:1, and a method of manufacture, Group 35817 is directed to a diagnostic composition comprising a protein essentially similar to SEQ ID NO:2, use of a protein essentially similar to SEQ ID NO:2, and a method of manufacture,... Group 38570 is directed to a diagnostic composition comprising a protein essentially similar to SEQ ID NO: 2755, use of a protein essentially similar to SEQ ID NO: 2755, and a method of manufacture.

Groups 38571-41325, claim(s) 27, 30 and 32, drawn to a kit comprising a nucleic acid essentially similar to any one of SEQ ID NO 1 to 2755, use of a nucleic acid essentially similar to any one of SEQ ID NO 1 to 2755, and a method of manufacture.
Group 38571 is directed to a kit comprising a nucleic acid essentially similar to SEQ ID NO:1, use of a nucleic acid essentially similar to SEQ ID NO:1, and a method of manufacture, Group 38572 is directed to a kit comprising a nucleic acid essentially similar to SEQ ID NO:2, use of a nucleic acid essentially similar to SEQ ID NO:2, and a method of manufacture,... Group 41325 is directed to a kit comprising a nucleic acid essentially similar to SEQ ID NO:2755, use of a nucleic acid essentially similar to SEQ ID NO:2755, and a method of manufacture

Groups 41326-44080, claim(s) 27, 30 and 32, drawn to a kit comprising a protein essentially similar to any one of SEQ ID NO 1 to 2755, use of a protein essentially similar to any one of SEQ ID NO 1 to 2755, and a method of manufacture.
Group 41326 is directed to a kit comprising a protein essentially similar to SEQ ID NO 1, use of a protein essentially similar to SEQ ID NO 1, and a method of manufacture, Group 41327 is directed to is directed to a kit comprising a protein essentially similar to SEQ ID NO 2, use of a protein essentially similar to SEQ ID NO 2, and a method of manufacture, ... Group 44080 is directed to is directed to a kit comprising a protein essentially similar to SEQ ID NO 2755, use of a protein essentially similar to SEQ ID NO 2755, and a method of manufacture.

Groups 44081-46835, claim(s) 27 and 31-32, drawn to a plant effective agent comprising a nucleic acid essentially similar to any one of SEQ ID NO 1 to 2755, use of a nucleic acid essentially similar to any one of SEQ ID NO 1 to 2755, and a method of

manufacture. Group 44081 is directed to a plant effective agent comprising a nucleic acid essentially similar to SEQ ID NO:1, use of a nucleic acid essentially similar to SEQ ID NO:1, and a method of manufacture, Group 44082 is directed to a plant effective agent comprising a nucleic acid essentially similar to SEQ ID NO:2, use of a nucleic acid essentially similar to SEQ ID NO:2, and a method of manufacture, ... Group 46385 is directed to a plant effective agent comprising a nucleic acid essentially similar to SEQ ID NO:2755, use of a nucleic acid essentially similar to SEQ ID NO:2755, and a method of manufacture.

Groups 46836-49590, claim(s) 27 and 31-32, drawn to a plant effective agent comprising a protein essentially similar to any one of SEQ ID NO 1 to 2755, use of a protein essentially similar to any one of SEQ ID NO 1 to 2755, and a method of manufacture. Group 46386 is directed to a plant effective agent comprising a protein essentially similar to SEQ ID NO:1, use of a protein essentially similar to SEQ ID NO:1, and a method of manufacture, Group 46387 is directed to a plant effective agent comprising a protein essentially similar to SEQ ID NO:2, use of a protein essentially similar to SEQ ID NO:2, and a method of manufacture, ... Group 49590 is directed to a plant effective agent comprising a protein essentially similar to SEQ ID NO:2755, use of a protein essentially similar to SEQ ID NO:2755, and a method of manufacture.

Groups 49591-52345, claim(s) 33-35, drawn to a food product derived from a plant or host cell according to any one of claim 12 to 16, use of a food product according to claim 33 in animal feed or food, and a method for the production of a food or feed product. Group 49591 is directed to a food product derived from a plant or host cell having modified expression of one or more nucleic acids and/or modified level and/or activity of one or more proteins essentially similar to SEQ ID NO:1 or comprising one or more nucleic acids and/or proteins essentially similar to SEQ ID NO:1, use of a food product in animal feed or food, and a method for the production of a food or feed product, Group 49592 is directed to a food product derived from a plant or host cell having modified expression of one or more nucleic acids and/or modified level and/or activity of one or more proteins essentially similar to SEQ ID NO:2 or comprising one or more nucleic acids and/or proteins essentially similar to SEQ ID NO:2, use of a food product in animal feed or food, and a method for the production of a food or feed product, ... Group 52345 is directed to a food product derived from a plant or host cell having modified expression of one or more nucleic acids and/or modified level and/or activity of one or more proteins essentially similar to SEQ ID NO:2755 or comprising one or more nucleic acids and/or proteins essentially similar to SEQ ID NO:2755, use of a food product in animal feed or food, and a method for the production of a food or feed product.

Groups 52346-55100, claim(s) 36-37, drawn to use of a nucleic acid essentially similar to any one of SEQ ID NO 1 to 2755 as a positive or negative selectable marker during transformation of cells or tissues or during cell procedures. Group 52346 is directed to use of a nucleic acid essentially similar to SEQ ID NO:1 as a positive or negative selectable marker during transformation of cells or tissues or during cell procedures, Group 52347 is directed to use of a nucleic acid essentially similar to SEQ ID NO:2 as a positive or negative selectable marker during transformation of cells or tissues or during cell procedures, ... Group 55100 is directed to use of a nucleic acid essentially similar to

SEQ ID NO:2755 as a positive or negative selectable marker during transformation of cells or tissues or during cell procedures.

Groups 55101-57855, claim(s) 36-37, drawn to use of a protein essentially similar to any one of SEQ ID NO 1 to 2755 as a positive or negative selectable marker during transformation of cells or tissues or during cell procedures. Group 55101 is directed to use of a protein essentially similar to SEQ ID NO:1 as a positive or negative selectable marker during transformation of cells or tissues or during cell procedures, Group 55102 is directed to use of a protein essentially similar to SEQ ID NO:2 as a positive or negative selectable marker during transformation of cells or tissues or during cell procedures, ... Group 57855 is directed to use of a protein essentially similar to SEQ ID NO:2755 as a positive or negative selectable marker during transformation of cells or tissues or during cell procedures.

Groups 57856-60610, claim(s) 38-39, drawn to an isolated nucleic acid comprising one or more of the regulatory elements upstream of the start codon of any of the nucleic acids represented by SEQ ID NO 1 to 2755. Group 57856 is directed to an isolated nucleic acid comprising one or more of the regulatory elements upstream of the start codon of the nucleic acid represented by SEQ ID NO 1, Group 57857 is directed to an isolated nucleic acid comprising one or more of the regulatory elements upstream of the start codon of the nucleic acid represented by SEQ ID NO 2, ... Group 60610 is directed to an isolated nucleic acid comprising one or more of the regulatory elements upstream of the start codon of the nucleic acid represented by SEQ ID NO 2755.

The inventions listed as Groups 1-60610 do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: The technical feature linking the inventions of Groups 1-60610 is a nucleic acid and/or protein expressed in or obtained from *Arabidopsis thaliana.* However, a nucleic acid and/or protein expressed in or obtained from *Arabidopsis thaliana* is obvious or anticipated over K. Vandepoele et al. (Genome-wide analysis of core cell cycle genes in *Arabidopsis*. Plant Cell. 2002 Apr;14(4):903-16, Applicant's IDS), and therefore does not constitute a special technical feature as defined by PCT Rule 13.2, because it does not define a contribution over the prior art.

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

Should applicant traverse on the ground that the inventions or species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions or species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C.103(a) of the other invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

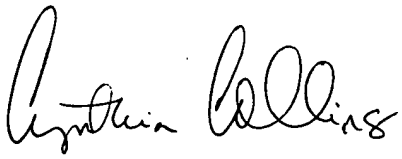
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cynthia Collins whose telephone number is (571) 272-0794. The examiner can normally be reached on Monday-Friday 8:45 AM -5:15 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anne Marie Grunberg can be reached on (571) 272-0975. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Cynthia Collins
Primary Examiner
Art Unit 1638

CC



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